



# GEOLOGIC MAP OF THE CALF CREEK QUADRANGLE, GARFIELD COUNTY, UTAH

by  
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————— **CONTACT** — Boundaries of surficial deposits approximately located.

⚡ - - - - - **FAULT** — Dashed where inferred; dotted where concealed; bar and ball on downthrown side. Arrows on cross section indicate direction of relative movement.

⬆ - - - - - **ANTICLINE** — Showing trace of axial plane and plunge of axis; dashed where approximately located.

⬆ - - - - - **SYNCLINE** — Showing trace of axial plane and plunge of axis; dashed where approximately located.

**STRIKE AND DIP OF BEDS**

↘ 6°  
Inclined

↑  
**STRIKE OF VERTICAL AND NEAR-VERTICAL JOINTS**

×  
**BORROW PIT**

◇  
**OIL WELL** — Dry hole, showing name of well.

- - - - - **STRUCTURE CONTOURS** — Drawn on top of Navajo Sandstone. Long dashed where control less accurate. Short dashed where datum above land surface. Contour interval 100 ft.

**DESCRIPTION OF MAP UNITS**

Qal Floodplain alluvium — *Fine sand and silt and local admixtures of gravel.*

Qes Eolian sand — *Fine to very fine sand and silt.*

Qae Sheetwash alluvium and eolium — *Silt, sand, and small rock fragments.*

Qatq<sub>1</sub> Low quartzite-gravel terrace alluvium — *Chiefly well-rounded cobbles of quartzite and lesser amounts of basaltic andesite and other resistant rocks on benches 10-20 feet above the Escalante River.*

Qatv<sub>1</sub> Low volcanic-gravel terrace alluvium — *Pebbles to boulders of basaltic andesite and small amounts of clasts of sandstone as much as 50 feet above Sand and Boulder Creeks.*

Qmfa Volcanic-gravel debris-flow colluvium and alluvium — *Angular to rounded clasts of basaltic andesite in unsorted colluvium that grades down-slope to well-sorted alluvium.*

Qcv Volcanic-gravel colluvium — *Rounded clasts of basaltic andesite chiefly on steep slopes.*

Qatq<sub>2</sub> Intermediate quartzite-gravel terrace alluvium — *Chiefly well-rounded cobbles of quartzite and lesser amounts of basaltic andesite and other resistant rocks on benches 40-80 feet (Qatq<sub>2</sub>) and 120-160 feet (Qatq<sub>3</sub>) above the Escalante River.*

Qatv<sub>2</sub> Intermediate volcanic-gravel terrace alluvium — *Pebbles to boulders of basaltic andesite and small amounts of sandstone clasts on benches 80-100 feet (Qatv<sub>2</sub>) and 190-260 feet (Qatv<sub>3</sub>) above stream level.*

Qatq<sub>4</sub> High quartzite-gravel terrace alluvium — *Chiefly well-rounded cobbles of quartzite and lesser amounts of basaltic andesite and other resistant rocks on benches about 200 feet above the Escalante River.*

Qatv<sub>4</sub> High volcanic-gravel terrace alluvium — *Pebbles to boulders of basaltic andesite and small amounts of sandstone clasts on benches 350-380 feet above Sweetwater Creek.*

QTatv Highest volcanic gravel terrace alluvium — *Pebbles to boulders of basaltic andesite and small amounts of clasts of chert and sandstone on a pre-canyon surface more than 600 feet above stream level.*

**UNCONFORMITY**

Jcu Upper member of the Carmel Formation — *Reddish-brown shale, reddish-brown and yellowish-gray, very fine to fine-grained sandstone.*

Jpt Thousand Pockets Tongue of the Page Sandstone — *Chiefly yellowish-gray to very light gray, fine- to medium-grained sandstone; commonly contorted. Shown separately in southwest corner of quadrangle; elsewhere combined with underlying Judd Hollow Tongue of the Carmel Formation in map unit Jpct.*

Jpct Thousand Pockets Tongue of the Page Sandstone and Judd Hollow Tongue of the Carmel Formation combined.

Jcj Judd Hollow Tongue of the Carmel Formation — *Moderate-reddish-brown siltstone and light-gray to reddish-brown, fine-grained sandstone; commonly contorted. Shown separately in southwest corner of quadrangle; elsewhere combined with Thousand Pockets Tongue of the Page Sandstone in map unit Jpct.*

Jph Harris Wash Tongue of the Page Sandstone — *Grayish-orange, cross-bedded fine-grained sandstone.*

**UNCONFORMITY**

J<sub>Tin</sub> Navajo Sandstone — *Chiefly grayish-orange, crossbedded, fine-grained sandstone.*

Tk Kayenta Formation — *Grayish-red to dusky-red, fine-grained sandstone interbedded with lesser amounts of dusky-red siltstone.*

T<sub>W</sub> Wingate Sandstone — *Grayish-red to grayish-orange, crossbedded fine-grained sandstone.*

FORMATION	SYMBOL	THICKNESS (feet)	LITHOLOGY
Surficial deposits	Q	0-50	
Highest volcanic-gravel terrace alluvium	QTatv	0-50	
Upper member of the Carmel Formation	Jcu	120+	
Thousand Pockets Tongue of the Page Sandstone	Jpt	40-80	
Judd Hollow Tongue of the Carmel Formation	Jcj	10-40	
Harris Wash Tongue of the Page Sandstone	Jph	60-120	
Navajo Sandstone	J <sub>Tin</sub>	1300-1500	
Kayenta Formation	Tk	280-320	
Wingate Sandstone	T <sub>W</sub>	100+	

**CORRELATION OF MAP UNITS**

